

### REMARKS

Claims 1-56 are pending, with claims 1, 17, 35, 51-53 being independent. New claims 53-56 have been added. No new matter has been added.

### Boivie Rejection

Claims 1-13, 17-27, 31, 34-42, 45-52 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Boivie et al. (6,625,773). Applicant has amended the claims to obviate the § 102(e) rejection.

As amended, claim 1 recites a method of transmitting packets. A switch receives and selectively filters communications. The switch receives a first stream of data units that are addressed to a unicast address on the switch. The first stream of data units includes a payload portion and an attribute portion. The switch duplicates at least the payload portion of a data unit within the first stream of data units and enables access to the duplicated payload portion of the data unit by two or more terminals. Next, the switch forwards the duplicated payload portion of the data unit within a second stream of data units addressed to a unicast address on each of the two or more terminals. Finally, the selective filtering and forwarding are performed by the switch that is structured and arranged to selectively filter and forward between different domains at a same level in a protocol stack.

Applicant respectfully requests reconsideration and withdrawal of the rejection because Boivie fails to describe or suggest at least a switch that receives a first stream of data units that are addressed to a unicast address on the switch.

Instead, Boivie describes a multicast method where the source nodes provide outgoing packets with multiple destinations, as to avoid extensive processing of multicast groups at the intermediate routers:

"The idea here is to let the source node keep track of the destinations that it wants to send packets to and eliminate the need for the routers to store any state for the various multicast groups. For example, lets suppose that A is trying to get his packets distributed to B, C & D in FIG. 1. This can be accomplished as follows. A can send a new type of packet, according to the invention, to its default router, R1, that includes the list of destinations for the packet. The new packet type, which can be called "small group multicast" packet, is a level 3 packet which is to say that it is at the same level as IP in the protocol stack. In fact it has

much the same function as an IP packet, except for the fact that it is addressed to a list of destinations as opposed to a single destination.<sup>1</sup>“ (See Boivie at Col. 3:60 – Col. 4:15)

As seen from above, each packet in Boivie carries a list of destinations which are not the addresses of the intermediate switches. See B, C, and D in Fig. 1. Instead, the packets are destined to the final destinations (user workstations). Consequently, because Boivie's packets need to carry all of the multicast destinations in their headers, Boivie et al. admit that their system does not scale for “huge ‘broadcast-like’ multicasts. It is targeted for ‘small’ conferences.” See list of disadvantages at Col. 6:8-16. On the other hand, in Applicant's system, packets sent from the source system to the switch are addressed to a unicast address on the switch. See item 424 in FIG. 4 and Application, p. 9. As a result, Applicant's system is particularly well suited for transmission of heavy audio and video streaming broadcasts. See item 410, FIG. 4 and claims 11-13.

For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the § 102(e) rejection of claim 1 and its dependent claims 2-16.

Similarly to claim 1, each of independent claims 17, 35, and 51-56 recite an arrangement where the data units in the stream received by the switch are addressed to a unicast address on the switch. Accordingly, Applicants respectfully request withdrawal of the § 102(e) rejection of claims 17, 35, 51-53, and their dependent claims 18-34, 36-50, and 54-56 for at least the reasons discussed above with respect to claim 1.

#### **Boivie in view of Bommaiah Rejection**

Claims 14-16, 28-30, 32-34, and 43-44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Boivie et al. (6,625,773) in view of Bommaiah et al. (6,708,213). Applicant has amended the claims to obviate the § 103(a) rejection.

As amended, claim 1 recites a method of transmitting packets at a switch. As mentioned previously, claim 1 recites a method of transmitting packets. A switch receives and selectively filters communications. The switch receives a first stream of data units that are addressed to a

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<sup>1</sup> Emphasis added

unicast address on the switch. The first stream of data units includes a payload portion and an attribute portion. The switch duplicates at least the payload portion of a data unit within the first stream of data units and enables access to the duplicated payload portion of the data unit by two or more terminals. Next, the switch forwards the duplicated payload portion of the data unit within a second stream of data units addressed to a unicast address on each of the two or more terminals. Finally, the selective filtering and forwarding are performed by the switch that is structured and arranged to selectively filter and forward between different domains at a same level in a protocol stack.

Bommaiah, on the other hand, teaches a method for “streaming multimedia” in client-server systems. See Abstract. Bommaiah does not teach a switch that is structured and arranged to selectively filter and forward between different domains at a same level in a protocol stack. In Bommaiah’s system, servers are incapable of “forwarding between different domains at a same protocol level,” because, as it is well-known in the art of network communications, clients and servers act as the ultimate endpoints for packet streams and, hence, are functionally different from switches which selectively filter and forward between different domains at a same level in a protocol stack.

Furthermore, with respect to claims 14-16, 28-30, 32-34, and 43-44, there is no motivation to combine the teachings of Boivie with Bommaiah. For claims 14 and 32, the Examiner states that the motivation would have been to “reduce wasted bandwidth” or “to better utilize network resources...,” respectively. See Office Action at p. 7. However, neither Boivie nor Bommaiah would have led a person of ordinary skill in the art to modify Boivie in a way that would have resulted in the claimed system. In particular, both Boivie and Bommaiah are directed to improving utilization/speed of network resources. Accordingly, a person of ordinary skill in the art would not have turned to Bommaiah for purposes of modifying Boivie, because both systems strive to achieve a similar goal through completely different approaches: Boivie is “network-centric” and Bommaiah is “server-centric.” As a result, a person of ordinary skill in the art would not have found specific motivation in either Boivie or Bommaiah to further combine the systems.

Obviousness cannot be established simply by stitching together pieces of prior art using the patent as a template. Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1143 (Fed. Cir. 1985); see also Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 873 (Fed. Cir. 1985) (denouncing courts' tendency to depart from proper standard of nonobviousness "to the tempting but forbidden zone of hindsight."); In re Fine, 837 F.2d 1071, 1075 (Fed. Cir. 1988) ("One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."); In re Dembiczak, 175 F.3d 994, 999 (Fed. Cir. 1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."). The cited references must provide some suggestion, motivation, or teaching for combining known components. See Heidelberger Druckmaschinen AG v. Hantscho Commercial Prods., Inc., 21 F.3d 1068, 1072, 30 USPQ2d 1377, 1379 (Fed.Cir.1994) ("When the patented invention is made by combining known components to achieve a new system, the prior art must provide a suggestion or motivation to make such a combination."); C.R. Bard, Inc. v. M3 Systems, Inc., 157 F.3d 1340 (Fed. Cir. 2000). The requisite motivation to combine the references has not been provided. Thus, the Examiner has not presented a *prima facie* case of obviousness.

Because both Boivie and Bommaiah lack critical limitations described above and, additionally, because there is no motivation to combine Boivie with Bommaiah, Applicants respectfully request reconsideration and withdrawal of rejections of claims 14-16, 28-30, 32-34, and 43-44.

Enclosed is a \$200.00 check for excess claim fees and a \$1020.00 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.


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Respectfully submitted,

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